

REMARKS

Claims 21 to 35 were rejected under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements. Claims 21, 25 to 29 and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schutze (U.S. 4,077,202) in view of Coffinberry (U.S. 5,143,329). Claims 21, 25 to 29 and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hield et al. (U.S. 5,694,765) in view of Coffinberry (U.S. 5,143,329). Claims 21 to 32 and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schutze (U.S. 4,077,202) in view of Coffinberry (U.S. 5,143,329), as applied above, and further in view of Lampe (U.S. 5,174,109). Claims 33 and 34 are allowable if rewritten to overcome the rejections under 35 U.S.C. §112, second paragraph.

Claims 21, 28, 29, 30 and 31 have been amended.

Claims 22 to 24 and 36 to 38 have been canceled without traverse.

Claim 39 has been added.

Reconsideration of the application based on the following remarks is respectfully requested.

35 U.S.C. §112 Rejections

Claims 21 to 35 were rejected under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements.

Claim 21 has been amended in response to the Office Action.

Withdrawal of the rejection of claims 21 to 35 is respectfully requested.

35 U.S.C. §103(a) Rejections

Claims 21, 25 to 29 and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schutze (U.S. 4,077,202) in view of Coffinberry (U.S. 5,143,329).

Schutze discloses a system “for starting an aircraft engine and for driving auxiliary equipment which permits driving the auxiliary equipment prior to starting the engine.” (Col. 1, lines 45 to 47).

Coffinberry discloses “an environmental control system apparatus for an aircraft powered by a gas turbine engine is provided with an engine compressor bleed supply means and an energy recovery means for returning the required or unused amount of energy back to the engine.” (Col.

3, lines 61 to 65).

Claim 21 has been amended to recite “a gas turbine, comprising
a core engine including a high pressure compressor and a shaft connected thereto for driving said high pressure compressor;
an electrical power generator connected to the shaft generating electrical power from the shaft, the electrical power generator further including an air turbine receiving compressed air drawn from the high pressure compressor to generate electrical power, the electrical power generator including a first generator connected to the shaft, the first generator generating electrical power from the mechanical shaft power drawn from the core engine via the shaft, the electrical power generator further including a second generator connected to an air turbine, the air turbine generating mechanical power from the compressed air, and the second generator generating electrical power from the mechanical power generated by the air turbine.” Support found in previously presented claims 28 and 29, for example.

Both Schutze and Coffinberry fail to teach or show “a second generator connected to an air turbine, the air turbine generating mechanical power from the compressed air, and the second generator generating electrical power from the mechanical power generated by the air turbine,” as recited in claim 21. There is no reason or need for a second generator in either Schutze or Coffinberry.

Withdrawal of the rejections of independent claim 21 and dependent claims 25 to 29 and 35 under 35 U.S.C. §103(a) is respectfully requested.

Claims 21, 25 to 29 and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hield et al. (U.S. 5,694,765) in view of Coffinberry (U.S. 5,143,329).

Hield et al. discloses a “multispool gas turbine engine for an aircraft application include[ing] a transmission system which is operative to transfer power between relatively rotatable engine spools.” (See Abstract).

Coffinberry is discussed above.

Claim 21 has been amended to recite “a gas turbine, comprising
a core engine including a high pressure compressor and a shaft connected thereto for driving said high pressure compressor;
an electrical power generator connected to the shaft generating electrical power from the

shaft, the electrical power generator further including an air turbine receiving compressed air drawn from the high pressure compressor to generate electrical power, the electrical power generator including a first generator connected to the shaft, the first generator generating electrical power from the mechanical shaft power drawn from the core engine via the shaft, the electrical power generator further including a second generator connected to an air turbine, the air turbine generating mechanical power from the compressed air, and the second generator generating electrical power from the mechanical power generated by the air turbine.”

Both Hield et al. and Coffinberry fail to teach or show “a second generator connected to an air turbine, the air turbine generating mechanical power from the compressed air, and the second generator generating electrical power from the mechanical power generated by the air turbine,” as recited in claim 21. There is no reason or need for a second generator in either Schutze or Coffinberry.

Withdrawal of the rejections of independent claim 21 and dependent claims 25 to 29 and 35 under 35 U.S.C. §103(a) is respectfully requested.

Claims 21 to 32 and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schutze (U.S. 4,077,202) in view of Coffinberry (U.S. 5,143,329), as applied above, and further in view of Lampe (U.S. 5,174,109).

Schutze is discussed above.

Coffinberry is discussed above.

Lampe discloses “facilitating starting of turbines by disconnecting mechanical loads during turbine start-up by using clutches, and more particularly to facilitating starting of aircraft auxiliary power units (APU) by having clutches disconnect gearboxes that drive pumps and generators not required for APU turbine start-up.” (Col. 1, lines 6 to 12).

Claim 21 has been amended to recite “a gas turbine, comprising
a core engine including a high pressure compressor and a shaft connected thereto for driving said high pressure compressor;
an electrical power generator connected to the shaft generating electrical power from the shaft, the electrical power generator further including an air turbine receiving compressed air drawn from the high pressure compressor to generate electrical power, the electrical power generator including a first generator connected to the shaft, the first generator generating

electrical power from the mechanical shaft power drawn from the core engine via the shaft, the electrical power generator further including a second generator connected to an air turbine, the air turbine generating mechanical power from the compressed air, and the second generator generating electrical power from the mechanical power generated by the air turbine.”

Both Schutze and Coffinberry fail to teach or show “a second generator connected to an air turbine, the air turbine generating mechanical power from the compressed air, and the second generator generating electrical power from the mechanical power generated by the air turbine,” as recited in claim 21. There is no reason or need for a second generator in either Schutze or Coffinberry. Furthermore it would not have been obvious to one of skill in the art to modify Schutze based on Lampe, nor is there any motivation to do so.

Withdrawal of the rejections of independent claim 21 and dependent claims 22 to 32 and 35 under 35 U.S.C. §103(a) is respectfully requested.

Claim Objections

Claims 33 and 34 would be allowable if rewritten in independent form to include all the limitations of the base claims and any intervening claims.

In light of the discussion above, withdrawal of the objections to claims 33 and 34 is respectfully requested.

New Claims

Claim 39 has been added. Support for claim 39 can be found in claim 33, for example. It is respectfully submitted that this claim is patentable.

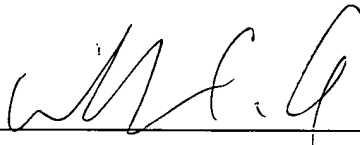
CONCLUSION

It is respectfully submitted that the application is in condition for allowance and applicants respectfully request such action.

If any additional fees are deemed to be due at this time, the Assistant Commissioner is authorized to charge payment of the same to Deposit Account No. 50-0552.

Respectfully submitted,

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